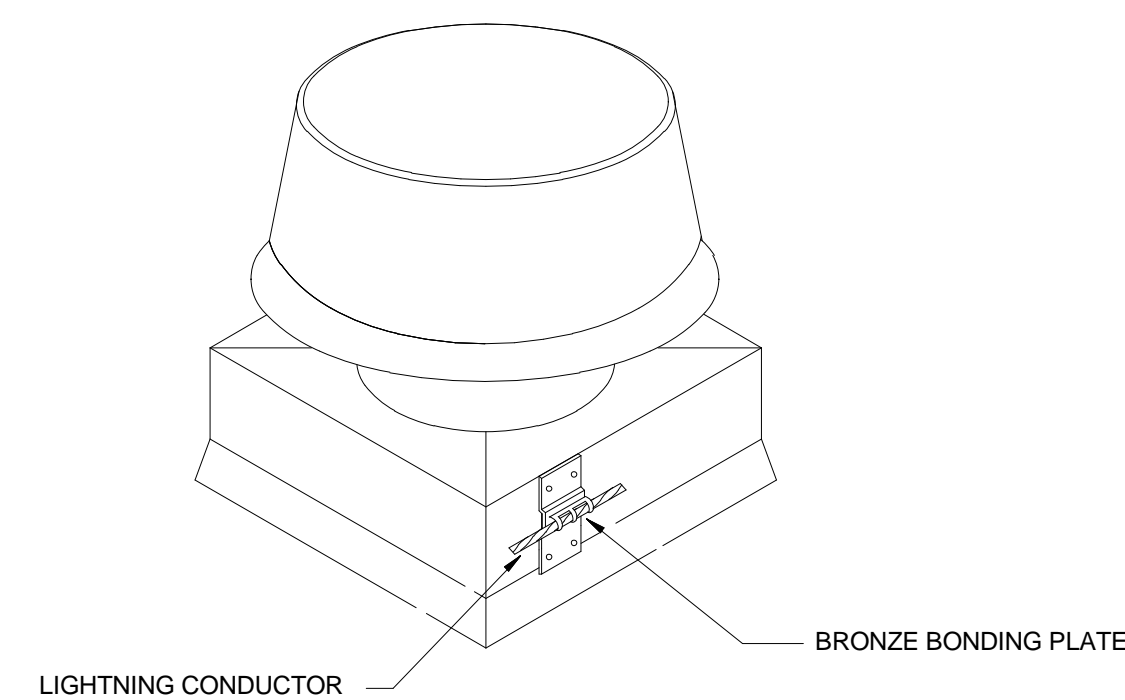
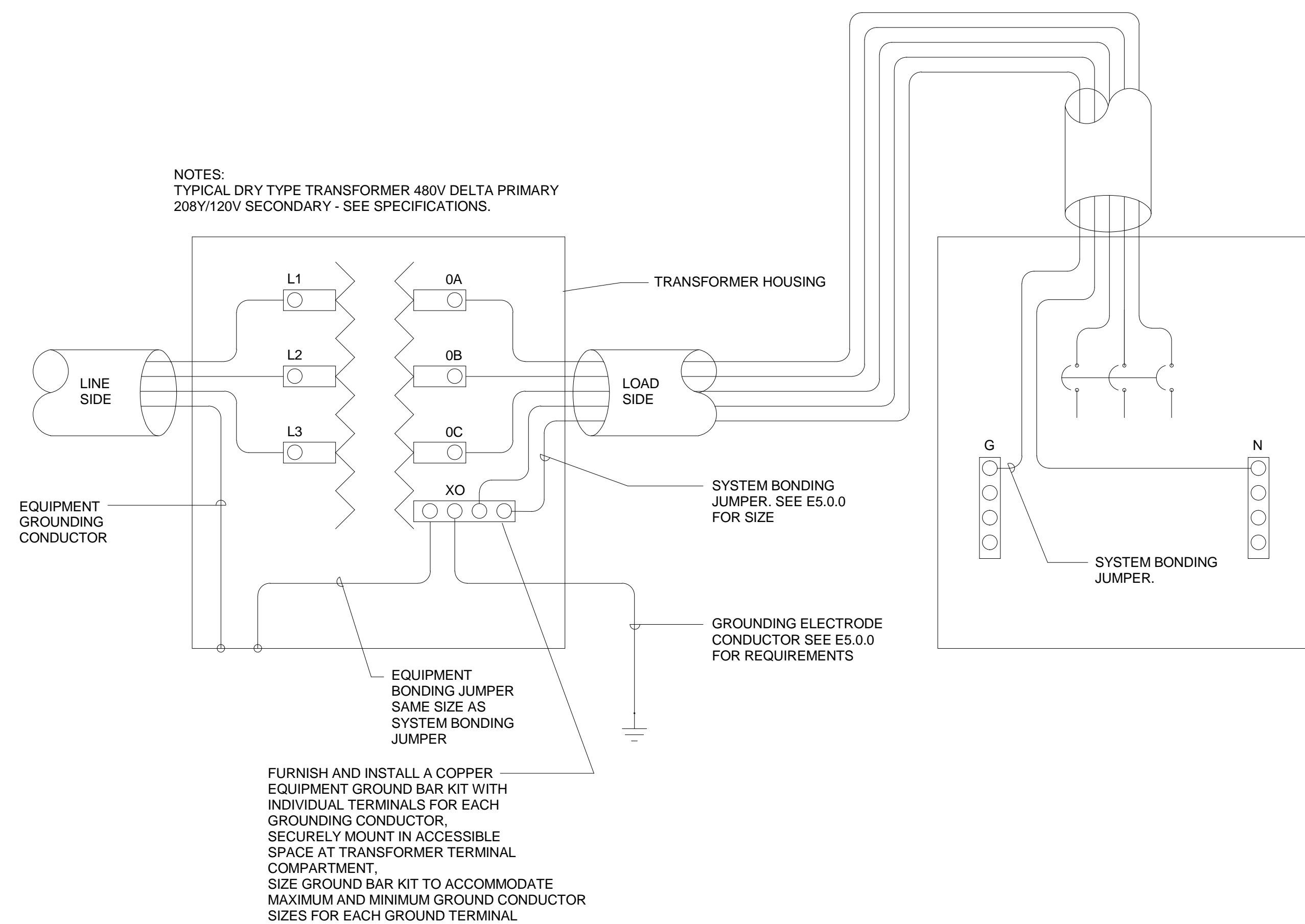


**1 LIGHTNING PROTECTION ROOF  
EXHAUST MOUNTED AIR TERMINAL DETAIL**  
SCALE: NONE



**2 LIGHTNING PROTECTION TYPICAL  
BONDING DETAIL FOR ROOF VENT OR EQUIPMENT**  
SCALE: NONE



**3 TYPICAL TRANSFORMER GROUNDING**  
SCALE: NONE

**SMITHGROUP**  
architecture engineering interiors planning

SMITHGROUP, INC.  
35 EAST WACKER  
SUITE 2200  
CHICAGO, IL 60601  
T 312.641.0770  
F 312.641.6728  
www.smithgroup.com

**JJR**  
landscape architecture  
planning  
urban design  
civil engineering  
environmental science

JJR, LLC  
35 EAST WACKER DRIVE  
SUITE 2200  
CHICAGO, ILLINOIS 60601  
312.641.0510 T  
312.641.0668 F  
www.jjr-us.com

**AEI Affiliated Engineers**

Affiliated Engineers, Inc.  
5802 Research Park Boulevard  
Madison, Wisconsin 53719  
Tel 608.238.2616 Fax 608.238.2614

**Thornton Tomasetti**

Thornton Tomasetti, Inc.  
330 N. Wabash Avenue, Suite 1500  
Chicago IL 60611-7622  
T 312.596.2000 F 312.596.2001

**TERRA**  
ENGINEERING LTD.  
225 West Ohio Street, 4th Floor  
Chicago, Illinois 60654  
T 312.467-5123 F 312.467-6220

SEALS AND SIGNATURES



ISSUED FOR CONSTRUCTION

REV. NO. DESCRIPTION BY APVD DATE



**FMS**  
Facilities Management Services

PROJECT TITLE ADVANCED PROTEIN  
CRYSTALLIZATION FACILITY,  
ARGONNE NATIONAL LABORATORY  
PROJECT NO 08541-00  
DRAWING TITLE

**ELECTRICAL DETAILS**

DESIGNED DLW	A/E CADD FILE E8.0.3	FACILITY NOIS
DRAWN DLW	A/E DWG. NO. E8.0.3	
CHECKED BRB	CAD NO.	
PROJECT MANAGER	DWG STATE	
ANL - JESSE ADAMS DATE - 11/07/11	BND ORDER	
FACILITY DOCUMENT NUMBER		REV. NO.

**J446-101-W- E8.0.3**